

# Highway Safety Improvement Program (HSIP)

## NC 87 Bypass at Peanut Rd



## **2005 HSIP Location:**

NC 87 Bypass  
at SR 1150 (Peanut Rd)  
in Bladen County  
located just outside of  
Elizabethtown

# Aerial View



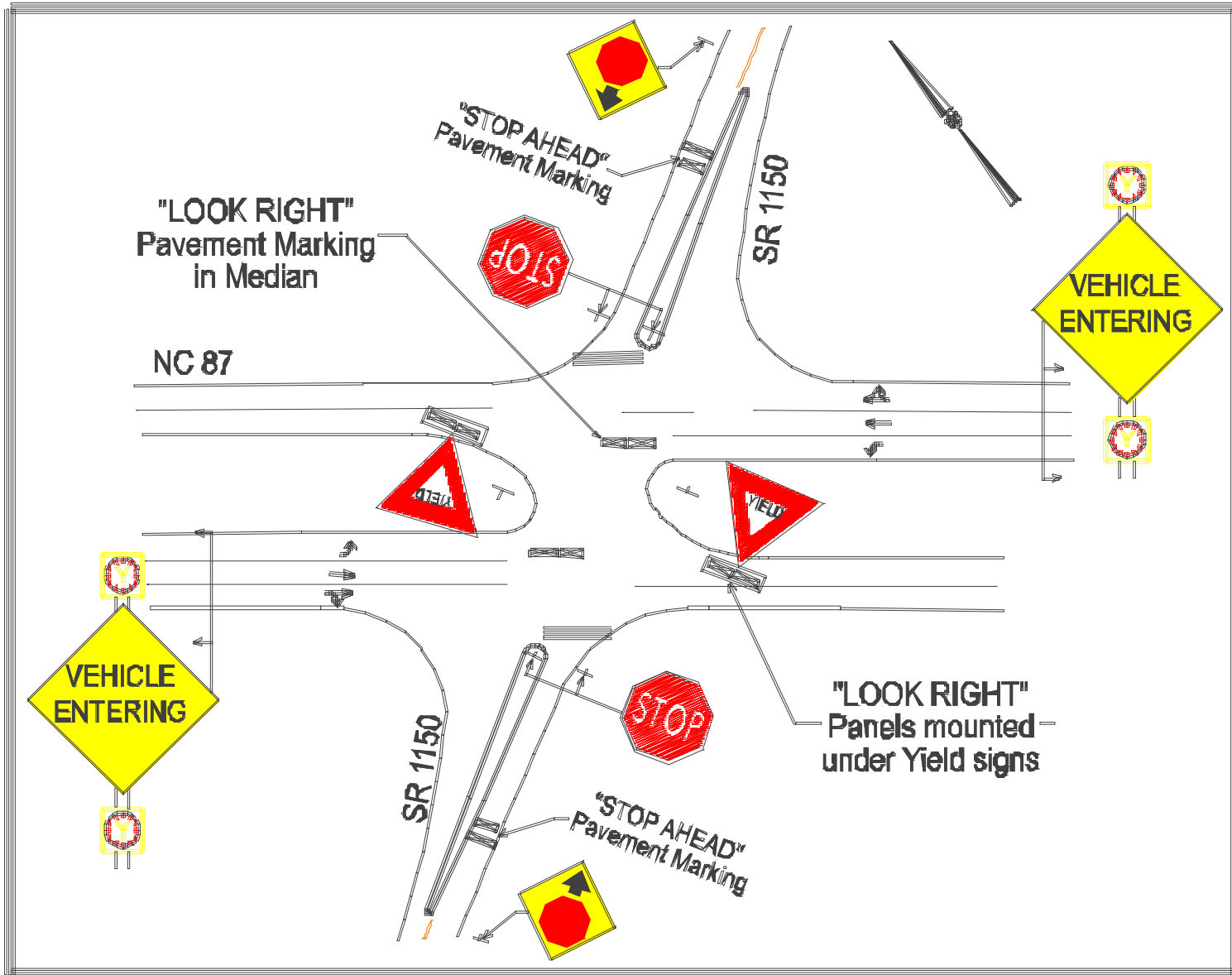
# History

- NC 87 Bypass was opened Oct 10, 1997
- 28 Crashes occurred from that date to Oct 29, 2001, to include 1 fatal crash
- Dec 14, 2001 Spot Safety Project 06-01-213 was initiated.
- 5 Crashes occurred in 2002, to include 2 fatalities
- August 30, 2002 Spot Safety Project 06-01-213 was completed  
Improvements included “Vehicle Entering” signs w/flashers, and additional pavement markings/signing
- 28 Crashes have occurred since the completion of that project, thru May 2006, to include 2 fatalities
- Project WBS-37148 (to relocate one leg of SR 1150) was just completed Aug 2006

**60 Total Crashes**  
**5 Fatal Crashes**  
**in just over 8 years**

# Existing Traffic Control

(Before recent project improvements)



# Signal plan for flasher

PROJECT NUMBER: 61A  
SHEET NO. 610-1

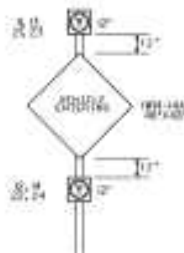
TABLE OF OPERATION		
SIGNAL FACE	INTERVAL	
	1	2
6, 14	ON	OFF
12, 15	OFF	ON
22, 24	ON	OFF
22, 23	OFF	ON

SIGNAL FACE I.D.

○ Detector I.E.D.



FIGURE 1



ACTUATED FLASHER

## NOTES

- Refer to "Roadway Standard Drawings NCSD" dated January 2002 and "Standard Specifications for Roads and Structures" dated January 2002.
- Set all detector units to presence mode.
- Flash beacons 11, 12, 13, 14, 21, 22, 23 and 24 when actuated by loops 1A, 1B.
- Sign B to be installed 650' from the center of the intersection.



REFER TO FIGURE 1 (SEE NOTE 4)



## LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
○	Traffic Signal Head	●	Signal Head
○	Modified Signal Head	●	Signal Head
○	Sign	○	Sign
○	Pedestrian Signal Head	○	Pedestrian Signal Head
○	Signal Pole with Sign	○	Signal Pole with Sign
○	Signal Pole with Sidekick Bay	○	Signal Pole with Sidekick Bay
○	Inductive Loop Detector	○	Inductive Loop Detector
○	Controller & Cabinet	○	Controller & Cabinet
○	2-in. Underground Conduit	○	2-in. Underground Conduit
○	Right of Way with Marker	○	Right of Way with Marker
○	Directional Arrow	○	Directional Arrow
○	Pavement Marking Arrow	○	Pavement Marking Arrow
○	"STOP" Sign (R1-1)	○	"STOP" Sign (R1-1)
○	"AHEAD AHEAD" Sign (W1-58)	○	"AHEAD AHEAD" Sign (W1-58)
○	"YIELD" Sign (R1-2)	○	"YIELD" Sign (R1-2)

THIS PLAN SUPERSEDES THE PREVIOUSLY ISSUED DESIGN DATED 2/7/02.

LOOP & DETECTOR UNIT INSTALLATION CHART											
INDUCTIVE LOOPS						DETECTOR UNITS					
LOOP NO.	SIZE (FT)	THICK (IN)	WIRE TYPE (AWG)	WIRE COLOR	WIRE LENGTH (FT)	THICK (IN)	WIRE TYPE (AWG)	WIRE COLOR	WIRE LENGTH (FT)	WIRE TYPE (AWG)	WIRE LENGTH (FT)
1A	6000	4	+	24	1	24	+	EXTENDED	30	ALL	NO
1B	6000	4	+	24	1	24	+	EXTENDED	30	ALL	NO

SEE NOTE 3

## PLAN QUANTITIES

Item	Quantity
Signal Cable	4800'
Message Cable	-
Lead-V Cable	30'

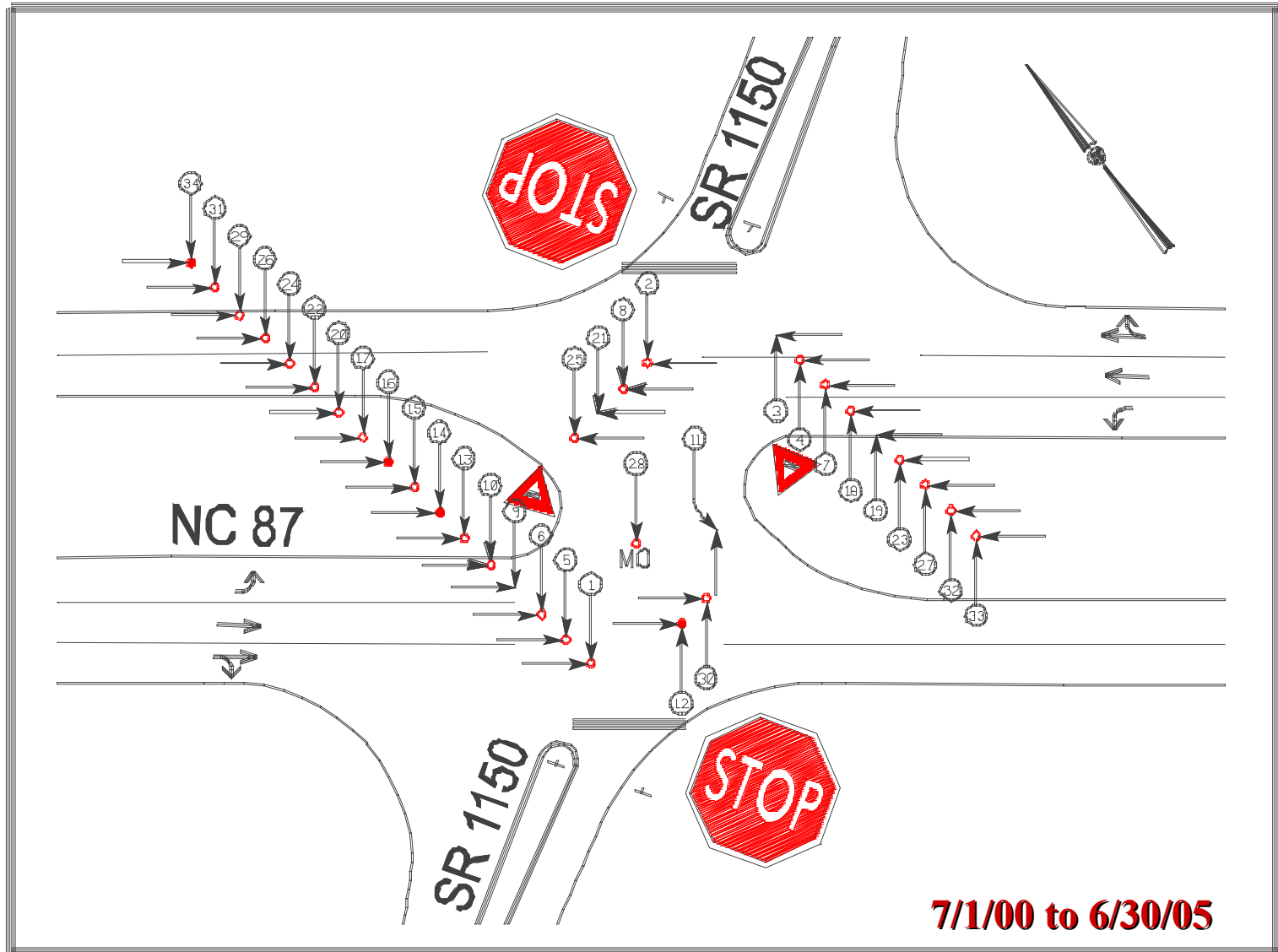
NEW INSTALLATION

	<b>MC 87 BY-PASS AT SR 1150 (PEANUT PLANT RD.)</b>		
	<b>SECTION 8</b> DRAWN BY: J. ALBERT CHECKED BY: J. ALBERT	<b>BLANKS COUNT</b> 11/000 11/000	
	DATE: 11/000 BY: J. ALBERT CHECKED BY: J. ALBERT	DATE: 11/000 BY: J. ALBERT CHECKED BY: J. ALBERT	

# Traffic Control Prior to Recent Project



# Collision Diagram



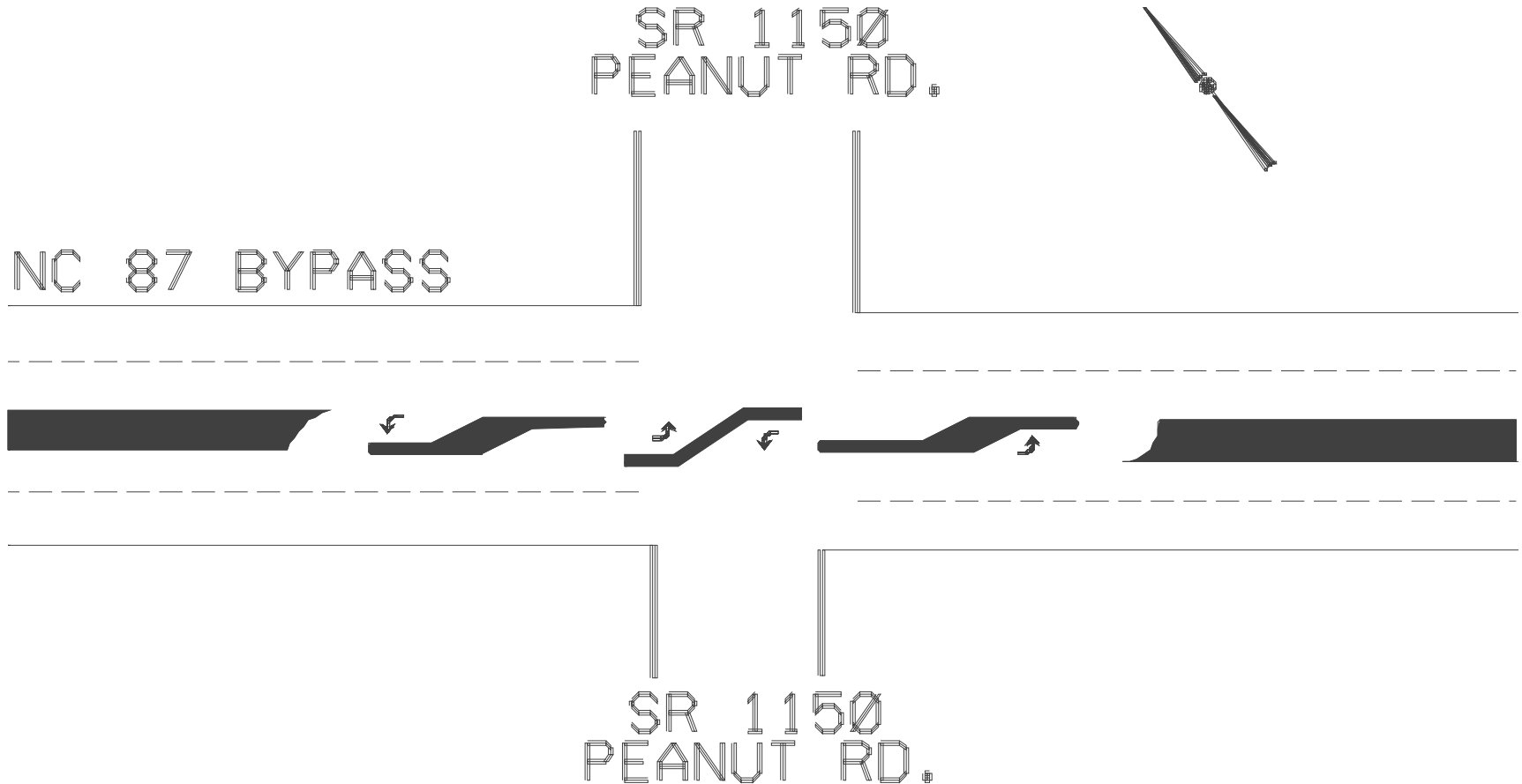
## Possible Solutions

- **Traffic Signal**
- **Flasher**
- **Michigan Left Turns**

## **Results**

- **Did Not Meet Signal Warrants**
- **Existing Actuated Flasher not affective**
- **Michigan Left Turns was a viable solution**

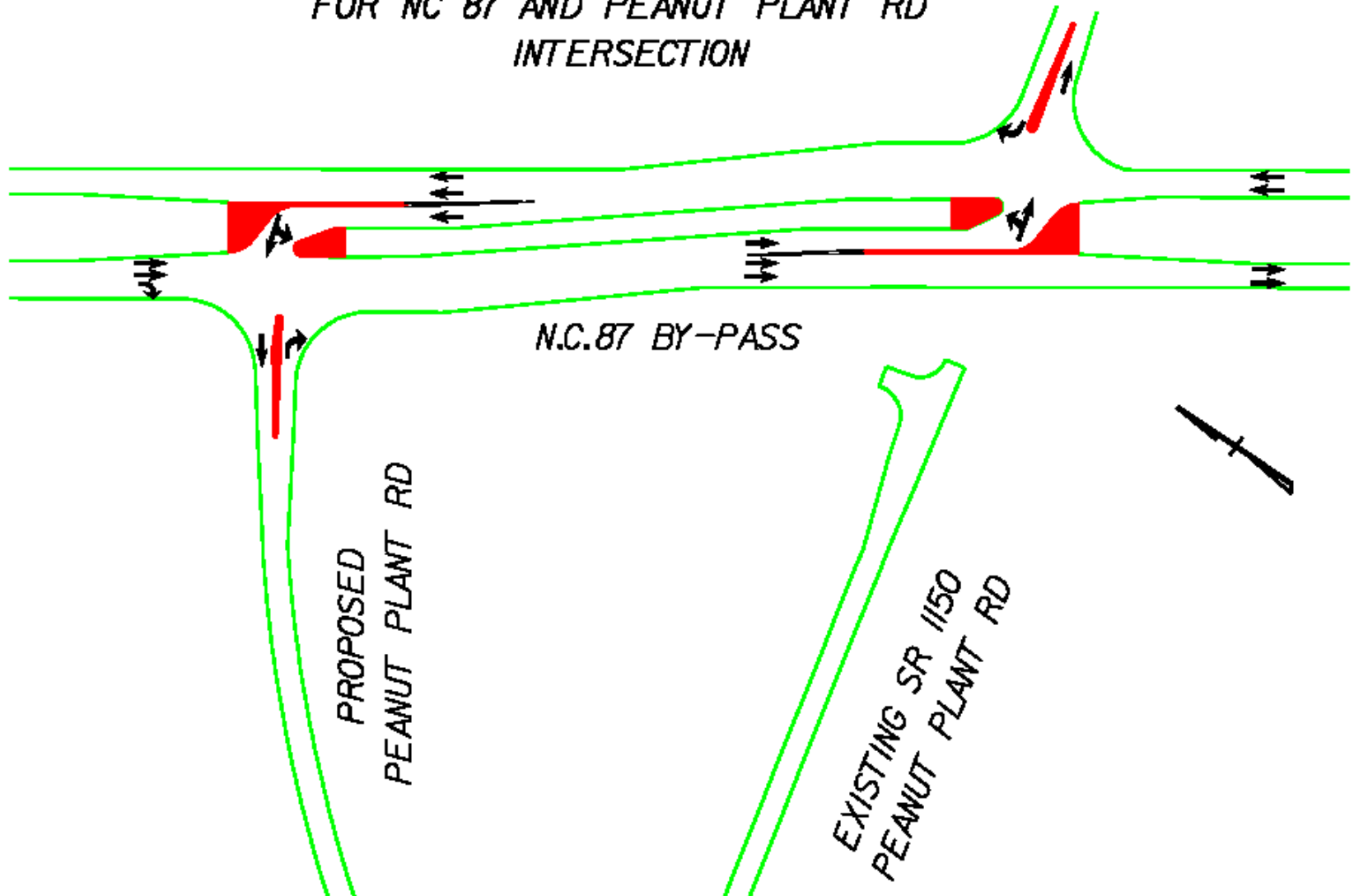
# Initial Proposed improvements



# **PUBLIC HEARING**

# Adjusted proposal by local citizens

## PROPOSED TRAFFIC PATTERN FOR NC 87 AND PEANUT PLANT RD INTERSECTION



**Project Completed**  
**August 2006**

## Recently completed project



## Recently completed project



# Recently completed project



# Recently completed project



## Recently completed project



## Recently completed project



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Thank You